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Date: June 18, 2009

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Subject: U.S. Patent Application 10/734,301

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Our File No.: 05725.1324-00000

**CERTIFICATE OF TRANSMISSION UNDER 37 CFR § 1.8**

I hereby certify that the attached Submission of Corrected Drawings is being submitted by facsimile transmission to the U.S. Patent and Trademark Office on June 5, 2009.

By:   
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PATENT  
Attorney Docket No. 05725.1324-00000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:	)	
Nathalie MOUGIN	)	
Application No.: 10/734,301	)	Group Art Unit: 1626
Filed: December 15, 2003	)	Examiner: SHIAO, Rei Tsang
For: COSMETIC OR	)	Confirmation No.: 2481
DERMATOLOGICAL	)	
COMPOSITION COMPRISING AT	)	
LEAST ONE GRADIENT	)	
COPOLYMER, MAKEUP	)	
COMPRISING THE COSMETIC OR	)	
DERMATOLOGICAL	)	
COMPOSITION AND COSMETIC	)	
METHOD USING THE	)	
COMPOSITION	)	

Commissioner for Patents  
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Entered 6/18/09 R.S.

Sir:

**SUBMISSION OF CORRECTED DRAWINGS**

Further to the telephone conversations with Examiner Shiao on May 14, and June 3, 2009, and in reply to the Office Communication mailed May 21, 2009, Applicant encloses herewith four (4) corrected drawing replacement sheets corresponding to the drawings located at pages 43, 44, 48, and 54 of the as-filed specification. In the Office Communication, the Office required a description of the drawings on pages 9, 13, 43, 44, 49, and 54 under 37 C.F.R. § 1.81. In the telephone interview with Examiner Shiao on May 14, 2009, the Examiner and Applicant's representatives agreed that there was

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sufficient description for the drawings located on pages 9 and 13, and thus, corrected figures did not need to be submitted for these pages. With respect to the drawings located on pages 43, 44, 48, and 54, Applicant submits herewith the appropriate replacement sheets, which include sufficient description for each drawing (i.e., labels for the "x" and "y" axes). No new matter has been added by the labeling. Accordingly, Applicant thus respectfully requests that the corrected drawing replacement sheets be entered.

In the Office Communication, claim 78 is objected to as containing a typographical error. In the telephone interview with Examiner Shiao on June 3, 2009, the Examiner stated that he would correct the typographical error, and that Applicant was not required to submit an amendment.


If for any reason the corrected drawing replacement sheets do not comply with the pertinent statutes and regulations, please so advise Applicant's representatives.

If there is any fee due in connection with the filing of this paper, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: June 18, 2009

By:   
Kimberly D. Smith  
Reg. No. 63,219

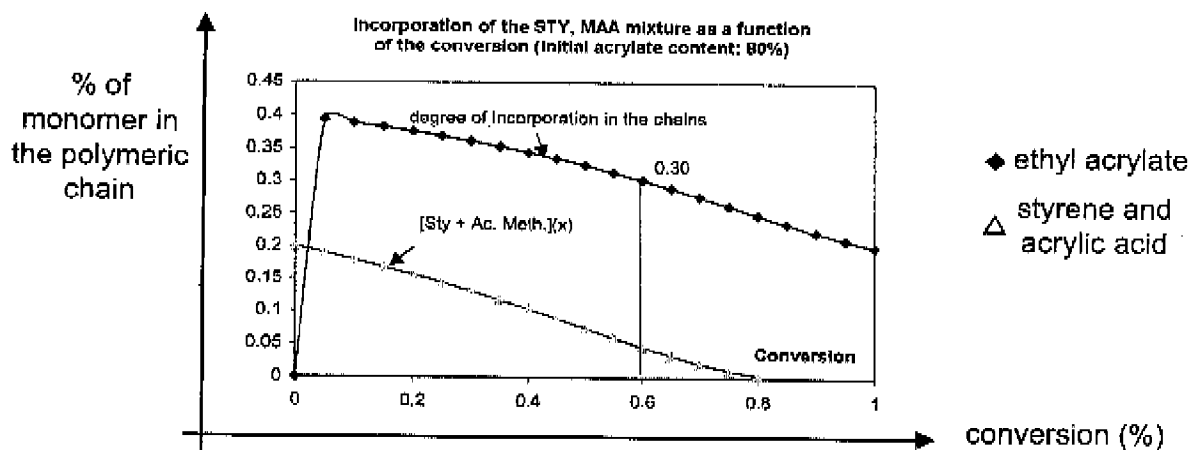
**Attachments:** Four (4) pages of corrected drawing Replacement Sheets corresponding to the drawings located at pages 43, 44, 48, and 54

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[0155] The validity of this model was provided by monitoring the relative concentrations of the three monomers by gas chromatography and NMR analysis of the polymers.

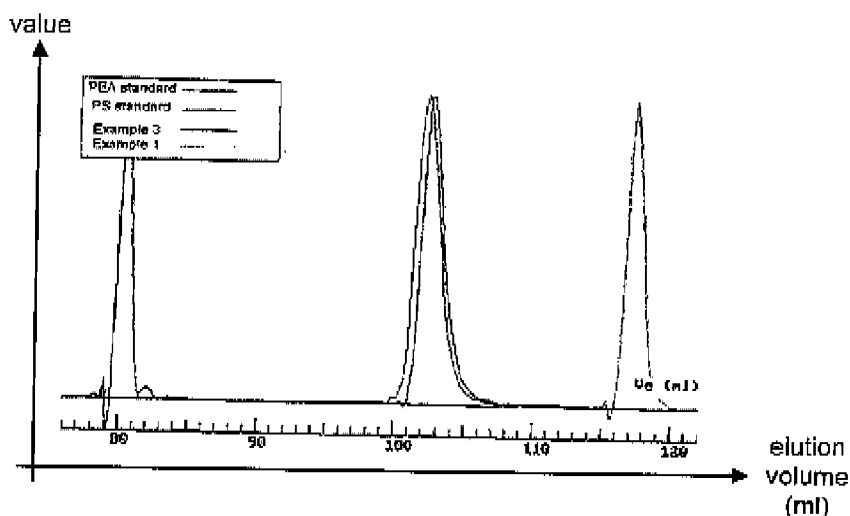
[0156] Using these methods, it was found that at 60% conversion, the final chemical composition of the copolymer was as follows (wt%): 68.4% ethyl acrylate, 16.1% styrene and 15.5% methacrylic acid according to NMR on the calculated curve (69%).



[0157] Using LAC, the trace of the polymer showed the low polydispersity of the chemical composition of the chains.

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[0158] Measurement of the molecular weights by steric exclusion chromatography lead to the following results:

[0159]  $M_n$  was equal to 32,140 g/mol and  $M_w$  was equal to 51,700 g/mol, hence the polydispersity index  $I_p$  was equal to 1.6.

[0160] The composition dispersity (or  $w$ ) was 1.6.

[0161] The following was a possible schematic representation of the copolymer that was obtained:



wherein the darkened units denote the styrene/methacrylic acid linkages, and the white units denote the ethyl acrylate linkages.

### **Example 2: Bulk synthesis of gradient copolymer**

[0162] Following the procedure described in example 1, various copolymers were prepared from the following mixture of reactants:

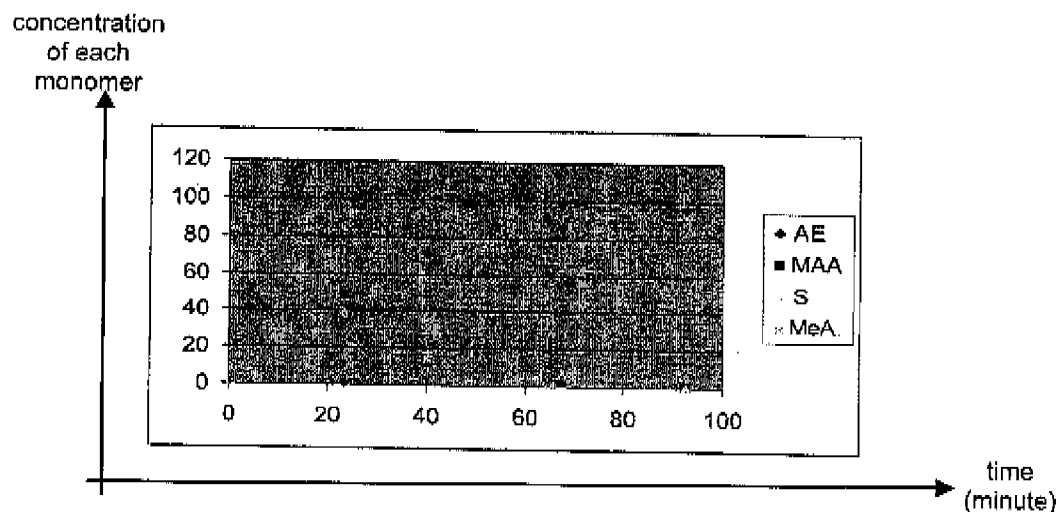
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- EA: ethyl acrylate
- MeA: methyl acrylate
- S: styrene
- MAA: methacrylic acid

\* the total residual content was calculated taking into account the solvent, quantified by the solids content.

[0174] It was noted that each monomer was present throughout the reaction. The gradient determined for each monomer could then be calculated, and gave the following curves:



[0175] The final composition of the copolymer was as follows:

- ethyl acrylate: 34% by weight
- methyl acrylate: 34% by weight
- styrene: 16% by weight
- methacrylic acid: 16% by weight

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[0193] Thus, a system obtained with a gradient copolymer, even when used at high concentration, was thinner (low viscosity at rest) than that obtained with a chemically equivalent diblock, used at a far lower concentration.

